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ing one opened bunch of rose-colored blossoms. To my surprise it proved to be *Rhododendron Rhodora*, Don. Further search brought us two additional specimens, for it had barely begun to bloom. A week later, the bushes were, no doubt, in their full glory. The portion of the swamp on the left side of the road was first visited. On the damp, shaded ground flourished profusely *Anemone nemorosa*, *Coptis trifolia*, *Polygala paucifolia*, *Aralia trifolia* and *Smilacina bifolia*, but no sign of what we sought could be detected. We then returned to the edge of the swamp, and tried it on the right, or east side of the road. Good fortune favored us, and in less than five minutes we stood in the midst of an acre of *Helonias bullata*. It grows underneath larch-trees (*Larix Americana*, Mx.) in soft, black muck, and its chief associates are *Clintonia borealis* and *Sarracenia purpurea*. Here and there appeared a stout scape, about 2 feet high, capped with its short spike of purplish flowers, and at its base clustered the broadly ovate new leaves beside the oblanceolate and very elongated old ones of last year. Such results from the exploration of a limited area during the brief space of an hour indicate that other interesting species await discovery in that swamp. Mr. Butler, who is a good amateur botanist, also informs me that in the same region there are several other bogs and swamps rich in floral treasures, in one of which *Calla palustris* abounds. On our way back to Dover we observed a hillside covered with a fine growth of *Juniperus communis*.

Easton, Pa. THOMAS C. PORTER.

§ 86. **Cross-Fertilization in Cereus phoeniceus.**—While collecting specimens of the above species in the Burro Mountains, N. M., I noticed a great difference in the flowers on two adjacent plants. In one form the styles were exsert, and the stamens shorter than the petals, while in the other the styles and petals were of about equal length. Naturally, I at first thought this a case of dimorphism, but the following observations convinced me of my error. The long-styled form had broadly spatulate petals of a very bright scarlet-red color, while in the other the petals were narrowly spatulate, and of a darker purplish-red, thus indicating a difference of variety. Although the stigma is not exsert in both forms, yet by the contraction of the withering corolla it shortly becomes so, the corolla dried tightly around the style preventing all access of the pollen to its own stigmas, which up to this time remain tightly closed and probably impotent. The latter fact could not be certainly determined, owing to a lack of material. The plant is very scarce in this immediate vicinity, and when I again visited these few plants no flowers remained. But I have no doubt that such is the case; for up to the time of the inclusion of the anthers (should any pollen remain), the stigmas are not only tightly closed, but hard, dry, and green, and in no case could any pollen be found upon them. The stamens, moreover, before the closing of the corolla, become limp and collapsed. But after this period the stigmas open, and pollen in abundance may be found upon them. Now if, as apparent, this is an arrangement for cross-fertilization, which is equally effected in both the long and short-styled forms, dimorphism is needless.

The only insects found visiting the plants were two species of ants, and a very small but active grasshopper. Not only is there a drop of the richest and sweetest nectar at the base of the style, but the cells of the entire flower are saturated with saccharine material. The flowers are frequently found with stamens, style, and a large portion of the corolla eaten away. The actions of the grasshopper are noteworthy. From his position in the heart of a flower he will leap lightly up through the anthers above him, and alight, possibly in or upon another flower, but more frequently upon a spine of the plant, which he will neatly grasp, preventing himself from being impaled. In this way the pollen is unavoidably scattered. I was unable to catch one of the active little creatures, so I cannot say what appendages or arrangements he may have for conveying the pollen about his person.

In conclusion, I would remark that a large plant, consisting of many heads or stems, grew in the dooryard of a house where I spent some time. While the plant was blooming I watched it closely for the appearance of insects, but could never see any upon it. It produced no fruit, nor, as I was informed, has it done so during the years that it has grown and bloomed there; a fact which may, or may not be significant.

Silver City, New Mexico. HENRY H. RUSBY.

§ 87. **Fasciation.**—Instances of this deformity appear to be very frequent this season. I have lately had sent me from this neighborhood a specimen of *Leucanthemum vulgare*, Lam., in which two heads were united at the summit of the flattened stem. Now, I have a remarkable specimen of *Rudbeckia hirta*, L., in which four heads are so united, forming a rosette of considerable beauty.

Brown University, July 13th, 1881. W. WHITMAN BAILEY.

§ 88. **Botrychium simplex** was found near Salem, Mass., by J. H. Sears, June 26th. The specimens were first rate, and four were found with *B. lanceolatum*, *B. matricariaefolium* and *B. Virginianum*.

Salem, Mass. JOHN ROBINSON.

§ 89. **Plant Exchanges.**—ERICACEAE WANTED.—I am anxious to obtain flowers and buds, in all stages of development, of the rarer and less accessible species of the *Ericaceae*, and will be glad to exchange for them species of plants from New Mexico.

Silver City, New Mexico. H. H. RUSBY.

FOR EXCHANGE.—I have found within the limits of this city, *Carex tetanica*, Schk., *C. Muhlenbergii*, var. *enervis*, Boott, very distinct; also the genuine *Eragrostis pilosa*, Beauv., and *E. Purshii*, Schrad. The latter, as I understand it, also according to Dr. Geo. Vasey, has often been regarded by many collectors as *E. pilosa*, though it is very different. I will send any or all of the above to any one for my desiderata.

Yonkers, N. Y. E. C. HOWE.

FOR EXCHANGE.—I have for exchange, *Petalostemon foliosus*, which grows abundantly in this neighborhood in a single locality—the only one that I know of in Illinois.